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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,546	04/03/2000	Pierre Duhot	31640-159397	4816

7590 08/11/2005

Venable
P.O.Box 34385
Washington, DC 20043-9998

EXAMINER

MCELWAIN, ELIZABETH F

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/542,546

Applicant(s)

DUHOT ET AL.

Examiner

Elizabeth F. McElwain

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,12,13,17,18,20,21,23,30,31,33,34 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,12,13,17,18,20,21,23,30,31,33,34 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The Request for Continued Examination filed May 26, 2005 has been approved and finality of the last office action has been withdrawn.

The amendment filed May 26, 2005 has been entered.

Claim 37 is newly submitted.

Claims 1, 12, 17, 30 and 31 are newly amended.

It is noted that Claim 36, which is withdrawn, appears to be amended. However, it is not labeled as "currently amended". Applicant is reminded that when a claim is both withdrawn and currently amended, then both status identifiers must be provided.

Claims 3-11, 14-16, 19, 22, 24-29, 32 and 34 are cancelled.

Claims 35 and 36 are withdrawn as drawn to a non-elected invention.

Claims 1, 2, 12, 13, 17, 18, 20, 21, 23, 30, 31, 33 and 37 are drawn to the elected invention and are examined in the instant office action.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Any rejections that have not been repeated have been withdrawn.

Claim Objections

1. Claim 12 is objected to because of the following informalities: in part "b" all of the wording has been deleted. It is suggested that "c." be deleted, so that part "c" will become part "b", and then "d." should be substituted with "c." Appropriate correction is required.
2. Claim 31 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the

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claim(s) in independent form. Claim 31 depends on claim 1, which results in the recovery of branched fatty acids from a transgenic plant. However, claim 31 is drawn to culturing a plant cell.

3. Claim 23 is objected to for the recitation of "in field", which should read "in a field."

Claim Rejections - 35 USC § 112

4. Claims 21 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 is indefinite in the recitation of "at least in one part of its cells", since it is unclear how to interpret this claim. Therefore, it does not set forth the metes and bounds of the claimed invention.

5. Claim 33 recites the limitation "napine promoter" in claim 12. There is insufficient antecedent basis for this limitation in the claim.

The previously stated rejection under 112, second paragraph has been withdrawn in view of the amendment or cancellation of claims.

6. Claims 12 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification, as originally filed, did not disclose: octopine synthase promoter, mannopine promoter, agropine promoter, acyl carrier protein promoter or napine promoter.

Claim Rejections - 35 USC § 102

7. Claims 1 and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmid (US Patent 5,936,139).

The claims are drawn to a process for producing branched fatty acids in a plant cell, plant material or a plant that comprises a recombinant nucleic acid encoding a cyclopropane fatty acid synthase operably linked to a seed specific promoter and extracting branched fatty acids from the plant.

Schmid teaches a process for producing branched fatty acids in a plant comprising transforming plant cells, including tobacco with a gene encoding cyclopropane fatty acid synthase operably linked to a seed specific promoter (column 4) and extracting branched fatty acids (column 6).

Claim Rejections - 35 USC § 103

8. Claims 1, 2, 12, 13, 17, 18, 20, 21, 23, 30, 31, 33 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid (Plant Lipid Metabolism, 1995, in IDS) taken with Applicant's admitted state of the prior art.

The claims are drawn to a process for producing branched fatty acids in a plant cell, plant material or a plant that comprises a recombinant nucleic acid encoding a cyclopropane fatty acid synthase operably linked to a seed specific promoter and extracting branched fatty acids from the plant.

Schmid teaches a process for producing branched fatty acids in a plant cell comprising transforming plant cells, including tobacco, with a gene encoding cyclopropane fatty acid

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synthase operably and extracting branched fatty acids (see pages 108-109). In addition, Schmid teaches that transformed plants have been produced using the CaMV 35S promoter, but that the accumulation of CPFA was low (page 110, the past paragraph). Therefore, Schmid teaches that given the desirability of expressing the CFA enzyme in the seeds of the plant, that alternative promoters should be used to enhance the expression in seeds (page 110, the last paragraph).

Schmid does not specifically teach use of a seed specific promoter.

Applicant's admitted state of the prior art teaches that seed specific promoters, such as a nopaline synthase promoter, were known (page 27 of the specification).

Given the recognition of those of ordinary skill in the art of the value of transforming a plant, such as tobacco, with a CFA coding sequence to produce branched fatty acids in a plant and in seeds of the plant, one of ordinary skill in the art would have been motivated to modify the construct taught by Schmid to substitute a seed specific promoter, given that Schmid teaches that accumulation of CPFA in seeds is desired, yet the CaMV 35S promoter is "relatively weak during the latter part of seed development"; and given that numerous seed specific promoters were known, as taught by Applicants' admitted state of the prior art, and the particular seed specific promoter would be a matter of choice, which would not confer patentable distinction on the claimed invention. Thus the claimed invention would have been prima facie obvious as a whole at the time it was made, especially in the absence of evidence to the contrary.

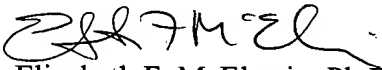
No claims are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth F. McElwain whose telephone number is (571) 272-0802. The examiner can normally be reached on increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones can be reached on (571) 272-0745. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Elizabeth F. McElwain, Ph.D.
Primary Examiner
Art Unit 1638

EFM